REMARKS/ARGUMENTS

Pending Claims

Claims 49, 51 and 54-56 have been cancelled. Claims 50, 52, and 53 have been amended. New claims 57-62 have been added. Accordingly, claims 50, 52-53, and 57-62 are pending in this application.

No new matter has been added by this amendment. Support for the amendment and new claims is found in the specification and claims as filed, for example, the claimed stringent conditions are defined in the specification at page 43, lines 30-35; and the claimed homology is defined at page 7, lines 24-29:

> Homologous is defined herein as the percentage of residues in the candidate sequence that are identical with the residues in the carbohydrate binding domain, the epidermal growth factor domain; or the complement binding domains FIG. 1 or FIG. 2 after aligning the sequences and introducing gaps, if necessary, to achieve the maximum percent homology.

Examiner's Indefiniteness Rejection:

The Examiner has rejected claim 49 and 51-53 as indefinite for reciting "stringent hybridization conditions". The claims have been amended to include the definition of stringent conditions recited in the specification at page 43, lines 30-35. Removal of this rejection is requested.

Claims 49-56 have been rejected as indefinite for reciting specific polypeptide domains without reciting "structural bounds". The claims have been amended to specifically recite the amino acid residues within each specific domain. Removal of this rejection is requested.

Examiner's Written Description Rejection:

The Examiner's rejection is not understood. The following statement does not appear to relate to the instant invention, and may be an editorial error. Clarification is respectfully requested.

> Claimed nucleic acid encoding protein variants encompass a large genus of ion channels which are alleles or variants whose function has yet to be

identified from different species of animal because the structure of the newly identified naturally occurring receptor is not known. (Office Action dated 10/16/01, page 3)

Examiner's Prior Art Rejections

The examiner found claims 52 and 53 allowable over the prior art. Applicants submit that claim 50 as amended is free of the prior art, as are new claims 57-62. Removal of the prior art rejection is respectfully requested.

Conclusion

Applicants submit the claims are in condition for allowance. Notice of such allowance is requested. The Examiner is invited to telephone Denise Kettelberger at 206.342.6251 for clarification of any of the amendments and remarks or to otherwise speed prosecution of this application.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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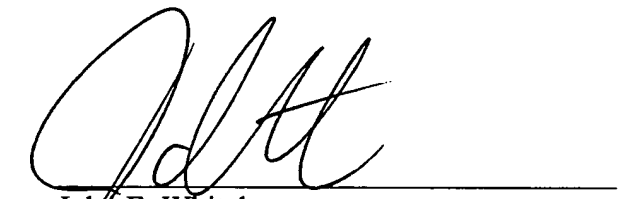

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the claims:

Claims 49, 51 and 54-56 have been cancelled.

New claims 57-62 have been added.

Claims 50, 52 and 53 have been amended as follows:

50. (Amended) An isolated polypeptide encoded by a DNA able to hybridize under stringent conditions to the complement of a DNA sequence encoding the carbohydrate binding domain (Trp39 to Cys155), the epidermal growth factor domain (Cys160 to Leu193); or a complement binding domain (Cys197 to Glu328) of the leukocyte homing receptor (LHR) amino acid sequence shown in FIG. 1 (SEQ ID NO:2) [The polypeptide of claim 49,] wherein the stringent conditions are overnight incubation at 42° C in a solution comprising 20% formamide [formaldehyde], 5X SSC (150 mM NaCl, 15 mM trisodium citrate),[15] 50 mM sodium phosphate (pH 7.6), 5X Denhardts solution, 10 % dextran sulfate, and 20 micrograms per ml denatured, sheared salmon sperm DNA, and wherein the polypeptide lacks a functional transmembrane domain, a functional cytoplasmic domain, or both.

52. (Twice Amended) An isolated polypeptide encoded by a DNA able to hybridize under stringent conditions to the complement of a DNA sequence encoding the carbohydrate binding domain (Trp39 to Cys155), the epidermal growth factor domain (Cys160 to Leu193); or a complement binding domain (Cys197 to Glu328) of the leukocyte homing receptor (LHR) amino acid sequence shown in FIG. 1 (SEQ ID NO:2), wherein the polypeptide is devoid of a functional transmembrane domain, and wherein the stringent conditions are overnight incubation at 42° C in a solution comprising 20% formamide, 5X SSC (150 mM NaCl, 15 mM trisodium citrate), 50 mM sodium phosphate (pH 7.6), 5X Denhardts solution, 10 % dextran sulfate, and 20 micrograms per ml denatured, sheared salmon sperm DNA.

53. (Twice Amended) An isolated polypeptide encoded by a DNA able to hybridize under stringent conditions to the complement of a DNA sequence encoding the carbohydrate domain (Trp39 to Cys155), the epidermal growth factor domain (Cys160 to Leu193); or a complement binding domain (Cys197 to Glu328) of the leukocyte homing receptor (LHR) amino

acid sequence shown in FIG. 1 (SEQ ID NO:2), wherein the polypeptide is devoid of a functional cytoplasmic domain, and wherein the stringent hybridization conditions comprise 20% formamide, 5X SSC (150 mM NaCl, 15 mM trisodium citrate), 50 mM sodium phosphate (pH 7.6), 5X Denhardts solution, 10 % dextran sulfate, and 20 micrograms per ml denatured, sheared salmon sperm DNA, overnight at 42° C.